

CLEAN AMENDED PARAGRAPHS/SECTIONS/CLAIMS

In the Specification:

Delete the SUMMARY OF THE INVENTION section beginning on page 1, line 30 and replace such deleted section with the following replacement section:

SUMMARY OF THE INVENTION

The present invention advantageously addresses the needs above as well as other needs by providing a method of managing a free-space optical network. The method includes the steps of: directing network data traffic over one or more free-space optical links in the free-space optical network; monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links; and routing the network data traffic through an alternate communication path in response to data obtained from the step of monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links.

R. In another embodiment, the invention provides a method of managing a free-space optical network. The method includes the steps of: directing network data traffic over one or more free-space optical links in the free-space optical network; monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links; attempting to adjust one or both of a transmission power and receive sensitivity of one or more of the free-space optical links in response to data obtained from the step of monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links; and routing the network data traffic through an alternate communication path in response to a failure in the step of

attempting to adjust.

In another embodiment, the invention can be characterized as a system for managing a free-space optical network. The system includes means for monitoring one or more environmental conditions in a vicinity of at least one of one or more free-space optical links in the free-space optical network, and means for routing network data traffic through an alternate communication path in response to data obtained from the means for monitoring one or more environmental conditions in a vicinity of at least one of one or more free-space optical links in the free-space optical network.

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In another embodiment, the invention provides a method of managing a free-space optical network that includes the steps of: directing network data traffic over one or more free-space optical links in the free-space optical network; monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links; sending an alarm over the free-space optical network in response to data obtained from the step of monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links; routing the network data traffic through an alternate communication path in response to the alarm; and rerouting the network data traffic over the one or more free-space optical links in the free-space optical network in response to additional data obtained from monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links.

In yet another embodiment, the invention provides a method of managing a free-space optical network that includes the steps of: directing network data traffic over one or more free-space optical links in the free-space optical network;

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monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links; sending an alarm over the free-space optical network in response to data obtained from the step of monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links; selecting an alternate communication path for the network data traffic in response to the alarm; routing the network data traffic through the alternate communication path; re-evaluating the alternate communication path selection; and rerouting the network data traffic over the one or more free-space optical links in the free-space optical network in response to additional data obtained from monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links.

A better understanding of the features and advantages of the present invention will be obtained by reference to the following detailed description of the invention and accompanying drawings which set forth an illustrative embodiment in which the principles of the invention are utilized.

In the Claims:

Replace the following like numbered claims:

- sub 1*
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1. (Amended) A method of managing a free-space optical network, comprising the steps of:
directing network data traffic over one or more free-space optical links in the free-space optical network;
monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical

links; and

routing the network data traffic through an alternate communication path in response to data obtained from the step of monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links.

2. (Amended) A method in accordance with claim 1, wherein the alternate communication path comprises a communication path that is not adversely affected by the one or more environmental conditions.

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64 } 7. (Amended) A method in accordance with claim 1, wherein the alternate communication path comprises a free-space optical link that is not adversely affected by the one or more environmental conditions.

Q1 /
Q3 8. (Amended) A method in accordance with claim 1, further comprising the step of:

rerouting the network data traffic over the one or more free-space optical links in the free-space optical network in response to additional data obtained from monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links.

9. (Amended) A method in accordance with claim 1, wherein the step of monitoring one or more environmental conditions comprises the step of:

collecting data indicative of at least one of the one or more environmental conditions with an instrument located in the vicinity of the at least one of the one or more free-space optical links.

12. (Amended) A method in accordance with claim 9, wherein the step of monitoring one or more environmental conditions further comprises the step of:

comparing the data indicative of at least one of the one or more environmental conditions to a predetermined level.

A4 Sub 13. (Amended) A method in accordance with claim 9, wherein the step of monitoring one or more environmental conditions further comprises the step of:

Q' sending an alarm over the free-space optical network in response to the data indicative of at least one of the one or more environmental conditions.

15. (Amended) A method of managing a free-space optical network, comprising the steps of:

directing network data traffic over one or more free-space optical links in the free-space optical network;

monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links;

A5 attempting to adjust one or both of a transmission power and receive sensitivity of one or more of the free-space optical links in response to data obtained from the step of monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links; and

routing the network data traffic through an alternate communication path in response to a failure in the step of attempting to adjust.

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16. (Amended) A method in accordance with claim 15, wherein the alternate communication path comprises a communication path that is not adversely affected by the one or more environmental conditions.

21. (Amended) A method in accordance with claim 15, wherein the alternate communication path comprises a free-space optical link that is not adversely affected by the one or more environmental conditions.

22. (Amended) A method in accordance with claim 15, further comprising the step of:

rerouting the network data traffic over the one or more free-space optical links in the free-space optical network in response to additional data obtained from monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links.

23. (Amended) A system for managing a free-space optical network, comprising:

means for monitoring one or more environmental conditions in a vicinity of at least one of one or more free-space optical links in the free-space optical network; and

means for routing network data traffic through an alternate communication path in response to data obtained from the means for monitoring one or more environmental conditions in a vicinity of at least one of one or more free-space optical links in the free-space optical network.

24. (Amended) A system in accordance with claim 23, wherein the alternate communication path comprises a

communication path that is not adversely affected by the one or more environmental conditions.

27. (Amended) A method of managing a free-space optical network, comprising the steps of:

directing network data traffic over one or more free-space optical links in the free-space optical network;
monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links;

sending an alarm over the free-space optical network in response to data obtained from the step of monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links;

routing the network data traffic through an alternate communication path in response to the alarm; and

rerouting the network data traffic over the one or more free-space optical links in the free-space optical network in response to additional data obtained from monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links.

29. (Amended) A method of managing a free-space optical network, comprising the steps of:

directing network data traffic over one or more free-space optical links in the free-space optical network;

monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links;

sending an alarm over the free-space optical network in response to data obtained from the step of monitoring one or more environmental conditions in a vicinity of at least one

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of the one or more free-space optical links;
selecting an alternate communication path for the
network data traffic in response to the alarm;
routing the network data traffic through the
alternate communication path;
re-evaluating the alternate communication path
selection; and
rerouting the network data traffic over the one or
more free-space optical links in the free-space optical
network in response to additional data obtained from
monitoring one or more environmental conditions in a vicinity
of at least one of the one or more free-space optical links.

Please ADD the following NEW claims:

31. (New) A method in accordance with claim 1,
wherein the step of routing the network data traffic through
an alternate communication path further comprises the step of:
selecting the alternate communication path.

32. (New) A method in accordance with claim 15,
wherein the step of routing the network data traffic through
an alternate communication path further comprises the step of:
selecting the alternate communication path.

33. (New) A system in accordance with claim 23,
wherein the means for routing the network data traffic over an
alternate communication path further comprises:
means for selecting the alternate communication
path.